Claims

1. A semi-enclosed gel system for release of volatile materials, wherein the dimensions of the gel system, in the x, y, and z dimensions, are such that:

a. $x_I / y_I > 1.5$, preferably > 2.0, and most preferably > 5.0,

b. $H_I / z_I > 2.0$, preferably > 4.0, and most preferably > 5.0,

c. $x_F / y_F > 2.0$, preferably > 5.0, and most preferably > 20.0,

d. $\frac{(A_D)\ \text{final}}{(A_D)\ \text{initial}} > 0.19$, preferably > 0.4, most preferably > 0.7, $\frac{(A_P)\ \text{final}}{(A_P)\ \text{initial}}$

wherein: A_D = Surface Area of the gel that is directly exposed to ambient flowing air

A_P = Area available for permeation of vapors generated within the enclosure

e. $\frac{(A_D)\ \text{final}}{(A_D)\ \text{initial}} > 0.65$, preferably > 0.75, and most preferably > 0.9, and

f. $\frac{(AP)\ \text{final}}{(AP)\ \text{initial}} < 4.0$, preferably < 3.5, and most preferably < 1.5.

wherein:

x_i = the longest dimension measured in the x direction of the projection of the directly exposed region of the gel system in the x-z plane at the initiation of volatilization;

y_i = the longest dimension measured in the y direction of the projection of the directly exposed region of the gel system in the x-y plane at the initiation of volatilization;

z_i = the longest dimension measured in the z direction of the projection of the directly exposed region of the gel system in the x-z plane at the initiation of volatilization;

H_i = the longest dimension measured in the z direction of the projection of the entire gel system in the x-z plane at the initiation of volatilization;

x_F = the longest dimension measured in the x direction of the projection of

the directly exposed region of the gel system in the x-z plane at the end of volatilization;

y_F = the longest dimension measured in the y direction of the projection of the directly exposed region of the gel system in the x-y plane at the end of volatilization;

z_F = the longest dimension measured in the z direction of the projection of the directly exposed region of the gel system in the x-z plane at the end of volatilization; and

H_F = the longest dimension measured in the z direction of the projection of the entire gel system in the x-z plane at the end of volatilization.

2. The semi-enclosed gel system of claim 1, wherein:

a. the ratio of final to initial values of A_D is greater than 0.65;

b. the ratio of final to initial value A_p is less than 4.0; and

c. the aspect ratio of the cross-section of the gel is greater than 1.5.

3. The semi-enclosed gel system of claim 2, wherein said volatile material is selected from the group consisting of materials employed for air freshening, insect control, and odor abatement.

4. The semi-enclosed gel system of claim 2, wherein said volatile material is a fragrance.